

Listing Of Claims:

1-20. (Canceled).

21. (Currently Amended) A packet based method of sending video data from a video source device to a video display device, comprising:

receiving a video data stream in accordance with a native stream rate ~~at the transmitter unit~~;

packetizing the video data stream; and

sending the video data packets from the video source device to the video display device at a link rate independent of the native stream rate using a linking unit comprising a unidirectional main link line for transmitting the video data packets from the video source device to the video sink device and a physically separate bi-directional auxiliary channel line for transferring information between the video source device and the video sink device, wherein neither the unidirectional main link line nor the bi-directional auxiliary channel line includes a clock line, wherein the unidirectional main link line is only capable of sending data in one direction by virtue of it being connected to a transmitter but not a receiver at a video source device end and being connected to a receiver but not a transmitter at a video display device end.

22. (Previously Presented) A method as recited in claim 21, wherein the video data packet stream is one of a number of video data packet streams each having an associated adjustable data stream link rate that is independent of the native stream rate.

23. (Canceled).

24. (Currently Amended) A method as recited in claim 21 ~~[[23]]~~, wherein the bi-directional auxiliary channel includes a uni-directional back channel configured to carry information from the video display device to the video source device.

25. (Currently Amended) A method as recited in claim 22, wherein the unidirectional main link line unit further comprises:

a number of virtual links each being associated with a particular one of the video data packet streams wherein each of said virtual links has an associated virtual link bandwidth and a virtual link rate.

26. (Original) A method as recited in claim 25, wherein a main link bandwidth is at least equal to an aggregate of the virtual link bandwidths.

27. (Currently Amended) A method as recited in 25 ~~[[21]]~~, wherein the video source data stream is packetized over a respective virtual link based upon a mapping definition.

28. (Currently Amended) A method as recited in claim 21, further comprising:
automatically determining when an active video display device is connected to the **unidirectional main link line using linking-unit-by** a hot plug detector unit.

29. (Previously Presented) A method as recited in claim 22, wherein the information includes display timing information used by the video display device to provide a displayed image based upon the received data stream.

30. (Original) A method as recited in claim 21, wherein the information includes sync loss information, dropped packets information and the results of training sessions information.

31. (Currently Amended) A method as recited in claim 22, wherein the video data packets **are transferred using** ~~[[is]]~~ an isochronous type transfer that includes a video/graphics data stream and a multichannel audio stream and wherein the information **is transferred using** ~~[[is]]~~ an asynchronous transfer.

32. (Original) A method as recited in claim 21, wherein the link rate is adjustable in a range of approximately 1.0 Gigabits per second (Gbps) to approximately 2.5 Gbps.

33. (Currently Amended) A method as recited in claim 22 ~~[[21]]~~, **further comprising using a wherein the receiver unit includes a** time-base recovery unit arranged to regenerate a particular data stream's native rate based upon a time stamp embedded within the **unidirectional** main link **line** data packets.

34.-36. (Canceled).

37. (Previously Presented) A method as recited in claim 21, wherein a native audio stream rate is calculated based upon the audio sample rate, the number of bits per sample and the corresponding link rate.

38. (Currently Amended) A method as recited in claim 22, wherein a ~~[[the]]~~ number of video data streams are multiplexed to form a single data stream suitable for transmission over the linking unit.

39. (Previously Presented) A method as recited in claim 21, wherein some of the video data packets include a number of sub-packets.

40. (Previously Presented) A method as recited in claim 39, wherein the video display device includes further comprising:

a selective refresh unit ~~included in the video display device~~ that updates only a portion of a displayed graphics image for every video frame based upon a number of image coordinates corresponding to the updated portion of the displayed image by way of sub-packets included in a corresponding video data stream.

41.-48. (Canceled).

49. (New) A packet-based display interface arranged in a video source, comprising:
a transmitter unit connected to a unidirectional main link line and to a bidirectional auxiliary channel line physically separate from the unidirectional main link line;

a receiver unit connected to the bidirectional auxiliary channel line but not connected to the unidirectional main link line;

wherein the transmitter is configured to send video data packets representing a packetized version of video data, wherein the sending is performed at a link rate independent of a native stream rate for the video data; and

wherein the transmitter and receiver are configured to send to and receive from a video display device information related to the packetized version of the video data, via the bi-directional auxiliary channel line.

50. (New) The packet-based display interface as recited in claim 49, wherein the video display device includes a transmitter unit connected to the bidirectional auxiliary channel line but not connected to the unidirectional main link line.

51. (New) The packet-based display interface as recited in claim 49, wherein neither the unidirectional main link line nor the bidirectional auxiliary channel line includes a clock line.

52. (New) The packet-based display interface as recited in claim 49, wherein the link rate is equal to a pixel clock rate in the video display device, eliminating the need for a clock signal for the transmitted video data packets.

53. (New) The packet-based display interface as recited in claim 49, wherein the information includes link training information.

54. (New) The packet-based display interface as recited in claim 49, wherein the transmitter is further configured to simultaneously send multiple video data packet streams, each at their own link rates, over the unidirectional main link line.

55. (New) The packet-based display interface as recited in claim 49, wherein the transmitter is further configured to intersperse null characters in the video data packets at times when the video data is blank.

56. (New) A packet-based method of receiving video data from a video source device at a video display device, comprising:

receiving video data packets corresponding to the video data on a unidirectional main link line while simultaneously receiving information regarding the video data packets on a bidirectional auxiliary channel line, wherein the unidirectional main link line is physically separate from the bidirectional auxiliary channel line;

displaying the video data at a clock pixel rate equal to a link rate of the packetized video data, eliminating the need for a clock line; and

wherein the link rate is independent of a native stream rate of the video data.

57. (New) The packet-based method as recited in claim 56, further comprising:
transmitting information regarding the video data on the bidirectional auxiliary channel
line.

58. (New) The packet-based method as recited in claim 57, wherein the transmitting
is performed using a transmitter connected to the bidirectional auxiliary channel line but not
connected to the unidirectional main link line.

59. (New) A video display device, comprising:
a receiver unit connected to a unidirectional main link line and to a bidirectional auxiliary
channel line physically separate from the unidirectional main link line;
a transmitter unit connected to the bidirectional auxiliary channel line but not connected
to the unidirectional main link line;
wherein the receiver is configured to receive video data packets representing a packetized
version of video data from a video source, wherein the packetized version of the video data has a
link rate independent of a native stream rate for the video data; and
wherein the transmitter and receiver are configured to send to and receive from the video
source information related to the packetized version of the video data, via the bi-directional
auxiliary channel line.

60. (New) The video display device as recited in claim 59, wherein the video source
device includes a receiver connected to the bidirectional auxiliary channel line but not connected
to the unidirectional main link line.

61. (New) The video display device as recited in claim 59, wherein neither the
unidirectional main link line nor the bidirectional auxiliary channel line includes a clock line.

62. (New) A computer chip configured to:
receive a video data stream in accordance with a native stream rate;
packetize the video data stream; and
send the video data packets from a video source device to a video display device at a link
rate independent of the native stream rate using a linking unit comprising a unidirectional main
link line for transmitting the video data packets from the video source device to the video sink
device and a physically separate bi-directional auxiliary channel line for transferring information

between the video source device and the video sink device, wherein neither the unidirectional main link line nor the bi-directional auxiliary channel line includes a clock line, wherein the unidirectional main link is only capable of sending data in one direction by virtue of it being connected to a transmitter but not a receiver at a video source device end and being connected to a receiver but not a transmitter at a video display device end.

63. (New) A computer chip configured to:

receive video data packets corresponding to a video data on a unidirectional main link line while simultaneously receiving information regarding the video data packets on a bidirectional auxiliary channel line, wherein the unidirectional main link line is physically separate from the bidirectional auxiliary channel line;

display the video data at a clock pixel rate equal to a link rate of the packetized video data, eliminating the need for a clock line; and

wherein the link rate is independent of a native stream rate of the video data.